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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/071,811

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Theodore Conard

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20575

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EXAMINER

MEUCCI, MICHAEL D

ART UNIT

PAPER NUMBER

2142

MAIL DATE

DELIVERY MODE

06/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/071,811

Applicant(s)

CONARD ET AL.

Examiner

Michael D. Meucci

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Art Unit: 2142

DETAILED ACTION

1. This action is in response to the Request for Continued Examination (RCE) filed on 26 March 2007.
2. Claims 1-26 remains pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 5, 8, 12, 15, 19, 22, and 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews Jr. et al. (U.S. 6,457,125 B1) hereinafter referred to as Matthews in view of Fletcher et al. (U.S. 6,009,274) hereinafter referred to as Fletcher, and Richman et al. (U.S. 5,655,148) hereinafter referred to as Richman.

a. As per claims 1, 8, 15, and 22, Matthews teaches: storing a first hardware configuration of a networked communications device in a memory on said networked communication device, ("existing configuration of the programmable logic blocks" of lines 45-46 of column 1); said network communication device including a plurality of programmable logic units to be programmed (lines 38-41 of column 2); receiving a second hardware configuration over a network, wherein said second hardware configuration is received into a memory of said networked communications device (lines 42-50 of column 1); and programming said plurality of programmable logic units on said

networked communications device according to said second hardware configuration (lines 42-67 of column 1).

Matthews does not explicitly teach said first hardware configuration having an associated checksum and timestamp indicating when said first hardware configuration was received; performing the checksum operation on said second hardware configuration to verify a received copy of said second hardware configuration; creating a timestamp associated with said second hardware configuration to indicate when said second hardware configuration was received; wherein said programming occurs in conjunction with a boot process initiation if said second hardware configuration has a correct checksum and a more recent associated timestamp than said first hardware configuration; and wherein said programmable logic unit is coupled with said network communications device via a removable card, and wherein said removable card is removably attached to said networked communications device.

However, Fletcher discloses: "In one embodiment, ASU agents receive the broadcast information and compare the latest version information with the version levels of the components that they are currently running," (lines 53-56 of column 10). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include timestamps for determining if the correct hardware configuration is present. "If there is any discrepancy, ASU agents with down version components (components that are indicated outdated) respond by requesting updated versions accordingly, and await to be updated upon a scheduled Auto update time slot. A discrepancy exists, for example, where the version of one or more software components

Art Unit: 2142

currently running at the agent (end system) are older than, or outdated by, the latest or newest version available from the ASU server as indicated in the advertisement(s) received from the ASU server. A discrepancy also exists where no current version of the advertised software component exists at the agent (end system)," (lines 56-67 of column 10 in Fletcher. It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to include timestamps for determining if the correct hardware configuration is present.

Richman discloses: "The checksum field is used to insure that no conflicts have occurred while reading the identification code from the board containing the device(s) 20," (lines 18-20 of column 38). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include a checksum field for determining if the correct hardware configuration is present. "A checksum verification operation is conducted when the serial data is acquired from the device 20 by the computer 8. The use of a checksum is a conventional technique for detecting data transfer errors," (lines 20-23 of column 38 in Richman). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to include a checksum field for determining if the correct hardware configuration is present.

Richman discloses: "The event detect element typically can detect the installation of a new device on the assigned system bus or the removal of an existing device. For example, device installation or removal can be detected by intercepting a particular interrupt signal or by periodically polling all of the available sockets of the bus to

Art Unit: 2142

determine the installed devices. Likewise, the event detect element can detect the insertion of a computer into or the removal of a computer from a docking station,” (lines 29-37 of column 7).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the programmable logic unit is coupled with said network communications device via a removable card, and wherein said removable card is removably attached to said networked communications device. Motivation comes from the simple interchangeability for ease of reconfiguration (see lines 43-51 of column 4 in Richman). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the programmable logic unit is coupled with said network communications device via a removable card, and wherein said removable card is removably attached to said networked communications device in the system as taught by Matthews.

b. As per claims 5, 19, and 26, Matthews teaches: said method further comprises verifying security information (line 57 of column 3 through line 9 of column 4).

c. As per claim 12, Matthews teaches: said method further comprises verifying security information (line 57 of column 3 through line 9 of column 4).

5. Claims 2-4, 9-11, 16-18, and 23-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, Fletcher, and Richman as applied to claims 1, 8, 15, and 22 respectively above, in view of Collins (U.S. 5,671,355).

a. As per claims 2-3, 9-10, 16-17, and 23-24, Matthews does not explicitly teach: said networked communications device is a router or a switch. However, Collins

Art Unit: 2142

discloses: "With this basic design, the reconfigurable network interface 10 has not only the capacity to provide different protocol support such as ARCNet, Ethernet, Token Ring, etc., but also has the ability to take on multi-level communications capabilities and thus perform the function of a hub, bridge, router, brouter, or gateway," (lines 29-34 of column 11). A router has all the capabilities of a switch; therefore, a switch can be considered a subset of routers. In this instance, the router disclosed in Collins teaches all limitations of the switch.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the networked communications device as a router or a switch. "Once the physical and datalink layers of the OSI model are established by the means of the reconfigurable bus interface 22 and reconfigurable transceiver 14, the reconfigurable network interface 10 is capable of providing the remaining layers of the OSI model through software emulation with the reconfigurable controller 12," (lines 23-29 of column 11 in Collins). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the networked communications device as a router or a switch in the system as taught by Matthews.

b. As per claims 4, 11, and 18, Matthews teaches: storing said first hardware description in non-volatile memory (lines 37-46 of column 1).

Matthews does not explicitly teach: collecting information, wherein a component of said networked communications device sends a configuration description to a processor of said networked communications device; and creating said first hardware description, wherein said processor creates said first hardware description using said

configuration description. However, Collins discloses: "Such a device without the network and bus type determination means 25 would require that configuration information be chosen manually. Such manual configuration would use a configuration program running on the host computer and may include a questionnaire providing a list of check boxes listing all possible configuration setup parameters. The user would simply check the appropriate boxes or other user interface devices in order to send the desired configuration information to the interface device 10 through the host computer bus, or to send configuration information stored on-board in non-volatile memory 20 to the desired reconfigurable element 12, 14, or 22," (lines 19-31 of column 8).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to collect information, wherein a component of said networked communications device sends a configuration description to a processor of said networked communications device; and create said first hardware description, wherein said processor creates said first hardware description using said configuration description. "Once the bus type and network type are identified, the configuration controller 46 directs configuration instructions preferably stored in EPROM 20 to the particular reconfigurable device 12, 14, or 22 addressing each through the configuration address bus 34. The network and bus type determination means 25 may be implemented with a neural net processor such as an Intel NI1000 Recognition Accelerator or Bell Labs NET32K processor or any other device which provides the required monitoring, comparison, and controller functions," (lines 51-60 of column 7 in Collins). It is for this reason that one of ordinary skill in the art at the time of the

applicant's invention would have been motivated to collect information, wherein a component of said networked communications device sends a configuration description to a processor of said networked communications device; and create said first hardware description, wherein said processor creates said first hardware description using said configuration description in the system as taught by Matthews.

c. As per claim 25, Matthews does not explicitly teach: collecting a configuration description of a component of said networked communications device and a means for using said configuration description in creating said first hardware description. However, Collins discloses: "Although the preferred form of the invention as shown in FIG. 1 includes separate network and bus type determination means 25 and external configuration input means 52, a device embodying the principles of the invention could include only the external input 50, port 48, and external configuration input means 52 through which configuration information is loaded into each of the reconfigurable devices, reconfigurable controller 12, reconfigurable transceiver 14, and reconfigurable bus interface 22. Such a device without the network and bus type determination means 25 would require that configuration information be chosen manually. Such manual configuration would use a configuration program running on the host computer and may include a questionnaire providing a list of check boxes listing all possible configuration setup parameters. The user would simply check the appropriate boxes or other user interface devices in order to send the desired configuration information to the interface device 10 through the host computer bus, or to send

Art Unit: 2142

configuration information stored on-board in non-volatile memory 20 to the desired reconfigurable element 12, 14, or 22," (lines 11-31 of column 8).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to collect a configuration description of a component of said networked communications device and have a means for using said configuration description in creating said first hardware description. "Once the bus type and network type are identified, the configuration controller 46 directs configuration instructions preferably stored in EPROM 20 to the particular reconfigurable device 12, 14, or 22 addressing each through the configuration address bus 34. The network and bus type determination means 25 may be implemented with a neural net processor such as an Intel NI1000 Recognition Accelerator or Bell Labs NET32K processor or any other device which provides the required monitoring, comparison, and controller functions," (lines 51-60 of column 7 in Collins). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to collect a configuration description of a component of said networked communications device and have a means for using said configuration description in creating said first hardware description in the system as taught by Matthews.

6. Claims 6-7, 13-14, and 20-21 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, Fletcher, and Richman as applied to claims 1, 8, and 15 respectively above.

Art Unit: 2142

a. As per claims 6, 13, and 20, Matthews does not explicitly teach: configuring said networked communications device with a schedule for initiating said receiving. However, Fletcher discloses: "In one embodiment, ASU agents receive the broadcast information and compare the latest version information with the version levels of the components that they are currently running. If there is any discrepancy, ASU agents with down version components (components that are indicated outdated) respond by requesting updated versions accordingly, and await to be updated upon a scheduled Auto update time slot," (lines 53-60 of column 10).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to configure the networked communications device with a schedule for initiating the receiving of the second hardware configuration. "An update control file in the ASU server controls the scheduling of the update process. The control file controls the number of nodes (agents) that are updated and when they are updated. For example, if thousands of agents require updating, the control file can schedule updating to be done one agent at a time, or several agents at a time (burst-mode), or even all agents at once," (lines 27-33 of column 12 in Fletcher). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to configure the networked communications device with a schedule for initiating the receiving of the second hardware configuration in the system as taught by Matthews.

b. As per claim 7, 14, and 21, Matthews does not explicitly teach: comparing the first hardware configuration with the second hardware configuration. However,

Fletcher discloses: "In one embodiment, ASU agents receive the broadcast information and compare the latest version information with the version levels of the components that they are currently running," (lines 53-56 of column 10).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to compare the first hardware configuration with the second hardware configuration. "If there is any discrepancy, ASU agents with down version components (components that are indicated outdated) respond by requesting updated versions accordingly, and await to be updated upon a scheduled Auto update time slot," (lines 56-60 of column 10 in Fletcher). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to compare the first hardware configuration with the second hardware configuration in the system as taught by Matthews.

Response to Arguments

7. Applicant's arguments filed 26 March 2007 have been fully considered but they are not persuasive.

8. (A) Regarding claim 1, the applicant contends that Matthews does not teach storing a first configuration file in a memory on said networked communication device. The examiner respectfully disagrees.

As to point (A), the applicant argues that the memory referred to in Matthews is at the "external host." The examiner points to lines 44-46 of column 1 which recite: "The

configuration information is downloaded into the device to configure the logic modules.” This clearly describes the configuration information entering the implicit *memory* on the device and is clearly not external to the host as believed by the applicant. The external memory the applicant refers to is recited on lines 42-44 of column 1 and was not explicitly cited by the examiner. As such, the rejection remains proper and is maintained by the examiner.

9. (B) Regarding claim 1, the applicant contends that Matthews does not teach: receiving a second hardware configuration into the memory of said networked communication device, wherein the second hardware configuration is different from the first hardware configuration. The examiner respectfully disagrees.

As to point (B), the applicant argues that Matthews teaches only one type of hardware configuration instead of two different hardware configurations. The examiner points out that the description of the reprogrammable hardware devices disclosed on lines 59-61 of column 1 provides: “Each logic module 120 may be any one of a variety of circuits capable of being programmed to implement all logic functions having one or more inputs.” This clearly shows that different hardware configurations are utilized in Matthews. As such, the rejection remains proper and is maintained by the examiner.

10. (C) Regarding claim 1, the applicant contends that Fletcher does not teach a timestamp to indicate when the associated hardware configuration was received at the network device. The examiner respectfully disagrees.

Art Unit: 2142

As to point (C), Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. The examiner points out that version levels of software are readily used to determine when a configuration is received (see lines 53-67 of column 10 in Fletcher). The examiner would also like to note that file systems automatically timestamp files to indicate when files are created and modified (see DOS). As such the rejection remains proper and is maintained by the examiner.

11. (D) Regarding claim 1, the applicant contends that Richman does not teach interchangeability for ease of configuration. The examiner respectfully disagrees.

As to point (D), the applicant argues that Richman instead teaches device installation or removal from a computer or the insertion or the removal of a computer into or from a docking station. The examiner points out that the "new device" as described on lines 29-31 of Richman in no way teaches away from the applicant's invention. Lines 49-62 of column 7 describe use of both the ISA bus and the PCMCIA bus, both of which are used for adding devices. Such devices are typically referred to as "cards" such as audio/video cards and network cards which are removable for upgrading. Therefore, the disclosure of Richman clearly teaches interchangeability for ease of configuration. As such, the rejection remains proper and is maintained by the examiner.

Art Unit: 2142

12. (E) Regarding claim 4, the applicant contends that Collins does not teach creating said first hardware description, wherein said processor creates said first hardware description using said configuration description. The examiner respectfully disagrees.

As to point (E), the applicant argues that Collins instead teaches sending the desired configuration to the interface device or to send the configuration information to the desired reconfigurable element. The examiner points out that the cited portions of Collins explicitly describe a processor configuring a device by loading configuration instructions. As such, the rejection remains proper and is maintained by the examiner.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schwaderer et al. (U.S. 7,180,887 B1) discloses routing sockets to send and receive configuration changes to and from the network stack.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Meucci at (571) 272-3892. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell, can be reached at (571) 272-3868. The fax phone number for this Group is 571-273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.meucci@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Beatriz Prieto
BEATRIZ PRIETO
PRIMARY EXAMINER